DETAILED ACTION

1. Claims 16-20, 25, 26, 35-40, 42, 44, 46- 53, 55, 56, 58 and 60-63 are presented for examination.

Claim Objections

2. Claims 16 – 20, 25 and 26 are objected to because of the following informalities: The newly added limitation of, "the dynamic network information table including to separate subtables comprising:" seems to be a typo, i.e., is "to" suppose to be "two". Applicant is asked to explain this limitation or amend to claim what is truly meant. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 16 – 20, 25, 26, 35 - 40, 42, 49 - 53, 58, 61 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenner et al. (6112239) (hereinafter Kenner) in view of Haeri et al. (6604241), hereinafter Haeri, in further view of Masuo et al. 6154444, hereinafter Masuo, in further view of Rakib et al. (6889385), hereinafter Rakib.**

5. Referencing claim 16, as closely interpreted by the Examiner, Kenner teaches a method for enabling a receiver in a digital subscriber network to request services, the method comprising:

6. receiving, at a receiver, a dynamic network information table inserted within a transport stream from a first device, (e.g., col. 16, lines 43 – 67); and

7. the dynamic network information table including an upstream subtable, (e.g., col. 16, lines 43 – 67);

8. the first device positioned in the digital subscriber network upstream with respect to the receiver, (e.g., col. 16, lines 43 – 67 & col. 17, line 44 – col. 18, line 29 "MSP/redirection server"),

9. the upstream subtable comprising one or more other device-specific subtables respectively including information associated with transmission characteristics of one or more devices positioned in the digital subscriber network upstream with respect to the first device, (e.g., col. 16, lines 43 – 67 & col. 17, line 44 – col. 18, line 29);

10. transmitting a request for a service, the requested service including at least a portion of the information included in the dynamic network information table, (e.g., col. 16, lines 43 – 67 & col. 17, line 44 – col. 18, line 29), but does not specifically teach the dynamic network information table including a device-specific subtable;

11. the device-specific subtable including information associated with transmission characteristics of the first device, the first device positioned in the digital subscriber network upstream with respect to the receiver;

12. wherein the transmission characteristics include the current network status and the current level of available bandwidth for each transport stream communicating with the first device.

13. It could be argued that the redirection server of Kenner would have to send an address of some sort to communicate with the user and that could be considered a “transmission characteristic” but the address of the first device is not explicitly stated.

14. Haeri teaches the dynamic network information table including a device-specific subtable, (e.g., col. 15, lines 10 – 31 or col. 15, line 55 - col. 16, line 35 et seq., The ability to send a "Get" command and receive routing table entries from a first router that would also have what routing characteristics of other routers which is the essence of a routing table.);

15. the device-specific subtable including information associated with transmission characteristics of the first device, the first device positioned in the digital subscriber network upstream with respect to the receiver, (e.g., col. 15, lines 10 – 31 or col. 15, line 55 - col. 16, line 35 et seq.);

16. wherein the transmission characteristics include the current network status and the current bandwidth for each transport stream communicating with the first device, (e.g., col. 15, lines 10 – 31, Noted: Applicant’s specification states that network status can be bandwidth.).

17. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Haeri's ability to specifically request parameters from all nodes in their network with Kenner’s specific teachings of sublists that include device specific information on which device can accommodate a specific user’s request because it would give the user the ability to determine which node in the network would be best suited for the request if the user

had all the information needed to make the determination, see Kenner, column 18, lines 53 et seq. Furthermore, the use of sending information about other devices bandwidth allows systems to know how much information a link and/or device can support in a network transmission. Haeri does teach sending bandwidth information but not specifically a current level of bandwidth. It could be interpreted that the device that sends the bandwidth information, could at one point, use all the bandwidth it has, and therefore is interpreted as a current level of available bandwidth, but for completeness and to expedite prosecution the Examiner will rely on another reference.

18. Masuo teaches the current level of available bandwidth for each transport stream communicating with the first device, (e.g., col. 4, lines 1 – 26 & col. 5, lines 34 – 60),

19. including a link status for each of the one or more devices positioned in the digital subscriber network upstream with respect to the first device, (e.g., col. 1, lines 15 – 35 & col. 4, lines 6 – 26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Masuo with the combine inventions of Kenner and Haeri because storing the current level of bandwidth a device and/or link has allows a system to know what devices and/or links can support larger amounts of network traffic. Furthermore, including a status of a link with a specific value allows the system to determine if specific devices are operable or contain errors within the device.

20. Rakib teaches the device-specific subtable including an identifier specific to the transport stream, (e.g., col. 2, lines 31 – 61, packet identifier). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Rakib with the combine inventions of Kenner, Haeri and Masuo because utilizing Ids within transmissions allows the

receiving device to know where the specific information within the different subtables came from, therefore storing the information accordingly.

21. Referencing claim 17, as closely interpreted by the Examiner, Kenner teaches identifying from the dynamic network information table and upstream device associated with the requested service, (e.g., col. 16, lines 43 – 67 & col. 17, line 44 – col. 18, line 29); and

22. including the identification of the upstream device in the transmitted request for the service, (e.g., col. 16, lines 43 – 67 & col. 17, line 44 – col. 18, line 29).

23. Referencing claim 18, as closely interpreted by the Examiner, Kenner teaches identifying a controller associated with the identified upstream device, (e.g., col. 16, lines 43 – 67 & col. 17, line 44 – col. 18, line 29 MSP);

24. wherein transmitting the request for the service includes transmitting the request to the controller, (e.g., col. 16, lines 43 – 67 & col. 17, line 44 – col. 18, line 29 MSP).

25. Referencing claim 19, as closely interpreted by the Examiner, Kenner teaches determining a communication path through the digital subscriber network for the requested service, (e.g., col. 18, line 30 – col. 19, line 50, Mapping the user's IP address to an IP address of a node that can accommodate the user in the same network.); and

26. including the communication path in the transmitted request for the service, (e.g., col. 18, line 30 – col. 19, line 50).

27. Referencing claim 20, as closely interpreted by the Examiner, Kenner teaches the communication path is determined based upon network information included in the received dynamic network information table, (e.g., col. 18, line 30 – col. 19, line 50).

28. Referencing claim 25, as closely interpreted by the Examiner, Kenner, Haeri and Masuo do not specifically teach the dynamic network information table is included in a packet having a reserved packet identifier associated therewith.

29. Rakib teaches the dynamic network information table is included in a packet having a reserved packet identifier associated therewith, (e.g., col. 10, line 23 – col. 11, line 11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Rakib with the combine inventions of Kenner, Haeri and Masuo because utilizing packet identifiers allows a system to identify specific streams of packets to a specific request and therefore resolve the request in the system.

30. Referencing claim 26, as closely interpreted by the Examiner, Kenner, Haeri and Masuo do not specifically teach the packet is a program association table packet. Rakib teaches the packet is a program association table packet, (e.g., col. 10, line 23 – col. 11, line 11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Rakib with the combine inventions of Kenner, Haeri and Masuo since utilizing a program association table packet in a set-top-box network allows the system to associate specific identification numbers with specific programs which further allows for smaller packets since the entire program is not requested only a small number, PIDs.

31. Referencing claim 37, as closely interpreted by the Examiner, Kenner, Haeri and Masuo do not specifically teach the second transport stream includes multiple elementary streams of the first transport stream. Rakib teaches the second transport stream includes multiple elementary streams of the first transport stream, (e.g., col. 38, line 52 – col. 39, line 24, *"channels and subchannels"*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Rakib with the combine inventions of Kenner, Haeri and Masuo because utilizing smaller subchannels allows for a more specific response from the main channels, i.e. channels that share the same traits, sports, news, etc.

32. Referencing claim 50, as closely interpreted by the Examiner, Kenner, Haeri and Masuo do not specifically teach the network information includes a transport stream identifier (TSID) for the received transport stream. Rakib teaches the network information includes a transport stream identifier (TSID) for the received transport stream, (e.g., col. 10, line 43 – col. 11, line 11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Rakib with the combine inventions of Kenner, Haeri and Masuo because of similar reasons stated above.

33. Claims 35, 36, 39, 40, 42, 49 – 53, 58, 61 and 63 are rejected for similar reasons as stated above.

34. Claims 44, 46, 47, 60 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenner, Haeri, Masuo and Rakib in view of Nobakht et al. (6813639) (hereinafter Nobakht).

35. As per claim 44, as closely interpreted by the Examiner, Kenner, Haeri, Masuo and Rakib do not specifically teach the first dynamic network information table is included in a program association table of the first transport stream. Nobakht teaches the first dynamic network information table is included in a program association table of the first transport stream, (e.g. col. 11, lines 29 – 64 & Figure 10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Nobakht with the combine inventions of Kenner, Haeri, Masuo and Rakib because of similar reasons stated above.

36. As per claim 46, as closely interpreted by the Examiner, Kenner, Haeri, Masuo and Rakib do not specifically teach the second dynamic network information table is included in a program association table of the second transport stream. Nobakht teaches the second dynamic network information table is included in a program association table of the second transport stream, (e.g. col. 11, lines 29 – 64 & Figure 10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Nobakht with the combine inventions of Kenner, Haeri, Masuo and Rakib because of similar reasons stated above.

37. As per claim 47, as closely interpreted by the Examiner, Kenner teaches the transmitter is a plurality of transmitters, each transmitter having an identifier associated therewith, and the

processor is adapted to create a dynamic network information table having a transmitter identifier included therein for each transmitter, (e.g., col. 18, line 30 – col. 19, line 50, IP address).

38. Claims 60 and 62 are rejected for similar reasons as stated above.

39. Claims 48 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenner, Haeri, Masuo and Rakib in view of Nakamura et al. (5913039) (hereinafter Nakamura).

40. As per claim 48, as closely interpreted by the Examiner, Kenner, Haeri, Masuo and Rakib do not specifically teach the processor is further adapted to monitor the first communication link and respond to changes in the first communication link by generating an alert message and sending the alert message to the transmitter, wherein the transmitter transmits the alert message through the second communication link.

41. Nakamura teaches the processor is further adapted to monitor the first communication link and respond to changes in the first communication link by generating an alert message and sending the alert message to the transmitter, wherein the transmitter transmits the alert message through the second communication link, (e.g. col. 10, line 28 – col. 11, line 13 & col. 11, line 35 – col. 12, line 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Nakamura with the combine inventions of Kenner, Haeri, Masuo and Rakib because once the server control unit gives the signal to the transmission video name in

the transmission schedule table in job scheduling storage unit, the timer of the client in alarm interrupt unit starts and therefore aiding in the scheduling of which data streams to store in a device.

42. Claim 56 is rejected for similar reasons as stated above.

43. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kenner, Haeri, Masuo and Rakib in view of Pecus et al. (6886029) (hereinafter Pecus).

44. As per claim 55, Kenner, Haeri, Masuo and Rakib do not specifically teach the network information includes bit error information. Pecus teaches the network information includes bit error information, (e.g., col. 30, lines 5 – 19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Pecus with the combine inventions of Kenner, Haeri, Masuo and Rakib because utilizing a bit error rate allows the users node identify when a transmission is not complete and what packets need to be re-transmitted therefore allowing a complete transmission.

Response to Arguments

45. Applicant's arguments with respect to claims 16-20, 25, 26, 35-40, 42, 44, 46- 53, 55, 56, 58 and 60-63 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

46. **Applicant is invited to contact the Examiner for possible 101 issues and to further prosecution if there are any other discrepancies in light of the interpretation of art and the claimed invention that can be communicated better in an interview.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID E. ENGLAND whose telephone number is (571)272-3912. The examiner can normally be reached on Mon-Thur, 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on 571-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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